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REMARKSJorach et al. 6,505,601

Claims 1-20 were rejected under 35 USC 102(b) as being anticipated by Jorach et al. 6,505,601.

The only reasoning given for rejection is said to be that the reference teaches "a single and multiple fuel injections phase forming an ignitable homogeneous mixture for a diesel engine".

Reconsideration and withdrawal of the rejection are requested for the following reasons.

35 USC 132 states in part: "Whenever, on examination, any claim for a patent is rejected .. the Director shall notify the applicant thereof, stating the reasons for such rejection .. etc." The Director's own rule 37 CFR 1.104(b) (2) states in part: "The pertinence of each reference, if not apparent, must be clearly explained ..etc."

The stated reasoning for rejection (quoted above) fails to explain, with clarity, how the reference is pertinent to each of the rejected claims, and for that reason alone the rejection is defective because it complies with neither statute nor rule.

Without conceding that the rejection is not defective, and in an effort not to delay prosecution, the following arguments are presented for the Examiner to consider based on the undersigned's understanding of the reference. In the event that the rejection is continued, it is requested that such continued rejection not be made final and that the

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Examiner give a clear and complete explanation of the pertinence of the reference to each rejected claim.

Independent Claim 1 recites:

a) when the result of the processing selects a first fueling mode, fueling the engine during an engine cycle to create a substantially homogeneous air-fuel charge within one or more combustion chambers and compressing the charge to auto-ignition without introducing any additional fuel after auto-ignition, and b) when the result of the processing selects a second fueling mode, fueling the engine during an engine cycle to create a substantially homogeneous air-fuel charge within the one or more combustion chambers, compressing the charge to auto-ignition, and introducing more fuel after auto-ignition to provide additional combustion.

Independent Claim 7 is a corresponding engine claim.

The reference's description of various injection events and of the nature of resulting mixture formation and combustion processes for various engine loads is ambiguous. For example, the reference refers at various points to a "low part load range, a "lower load range", a "lower part-load range", a "middle part-load range", an "upper part-load range", a "full load range", a "higher part load range" without defining any of them other than using reference numeral 21 to indicate a "low part-load range", reference numeral 22 to indicate a "middle part-load range", reference numeral 23 to indicate an "upper part-load range", and reference numeral 24 to indicate a "full-load range" in Figures 2, 3, 4, 8, 9, and 10.

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Figures 2-4 apparently relate to formation of heterogeneous mixtures while Figures 8-10 relate to "locally homogeneous" mixtures. "Locally homogeneous" is not defined.

Figures 5, 6, and 7 are said to show variants of injection pressure schemes.

Despite various ambiguities present, and lack of definitions, it seems to the undersigned that one of ordinary skill who attempted to resolve how these diverse injection schemes produce various mixtures in various load ranges and how such mixtures would combust would understand that the injection schemes of Figures 5-7 would always apply.

Consequently, one of ordinary skill would understand the reference not to teach both a) compressing a substantially homogeneous charge to auto-ignition without introducing any additional fuel after auto-ignition in a first fueling mode, and b) in a second fueling mode, compressing a substantially homogeneous charge to auto-ignition, and introducing more fuel after auto-ignition to provide additional combustion.

That the reference lacks such a teaching would be understood because at least an injection pulse 31, and preferably also a jet pulse 26, appear in all schemes used, even when the mixture is optionally a homogeneous one.

Withdrawal of the rejections of Claims 1 and 7 and claims dependent from each is believed proper and is respectfully requested.

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Kurtz et al. 6,863,058

Claims 1-20 were also rejected under 35 USC 102(e) as being anticipated by Kurtz et al. 6,863,058.

The only reasoning given for rejection is said to be that the reference teaches "a method for controlling a diesel engine comprising the steps of selecting the first fueling mode where only a single fuel injection is provided, a second fueling mode where a first and second fuel injections are provided to the cylinder forming a homogeneous mixture".

Reconsideration and withdrawal of the rejection are requested for the following reasons.

The stated reasoning for rejection (quoted above) fails to explain, with clarity, how the reference is pertinent to each of the rejected claims, and for that reason alone the rejection is defective because it complies with neither statute nor rule.

Without conceding that the rejection is not defective, and in an effort not to delay prosecution, the following arguments are presented for the Examiner to consider based on the undersigned's understanding of the reference. In the event that the rejection is continued, it is requested that such continued rejection not be made final and that the Examiner give a clear and complete explanation of the pertinence of the reference to each rejected claim.

It is respectfully submitted that this reference, like Jorach et al., does not teach both a) compressing a substantially homogeneous charge to auto-ignition without introducing any additional fuel after auto-ignition in a

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first fueling mode, and b) in a second fueling mode, compressing a substantially homogeneous charge to auto-ignition, and introducing more fuel after auto-ignition to provide additional combustion.

While the reference, at Col. 9, lines 32-38, does mention a fueling mode that might be understood as equivalent to the applicants' "second fueling mode", the other fueling mode of the reference would be understood as conventional diesel combustion, not as the applicants' first fueling mode that is stated to be "compressing a substantially homogeneous charge to auto-ignition without introducing any additional fuel after auto-ignition".

Therefore, withdrawal of the rejections of Claims 1 and 7 and claims dependent from each is believed proper and is respectfully requested.

Conclusion

For the above reasons, it is believed that full response has been made for placing the application in condition for allowance. Claims 13-20 are cancelled without prejudice, rendering moot the need for discussion of the other applied references.

Please continue to direct correspondence to the attorney of record. However, any questions regarding the content of this paper may be directed to the undersigned.

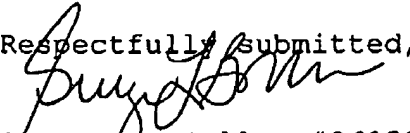
Contingent Deposit Account Authorization

Although it is believed that no additional claim fee is due in connection with the filing of this paper, any

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lawful fee determined by the Commissioner to be due with
this filing may be charged to Deposit Account No. 14-0603.

Respectfully submitted,

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